

# Towards a Latin American NIME Research Community

Juan Pablo Martínez Avila (Mexico)<sup>1</sup>, João Tragtenberg (Brazil)<sup>2</sup>, Filipe Calegario (Brazil)<sup>3</sup>, Juan Ramos (Argentina)<sup>4\*</sup>, Martín Matus Lerner (Argentina)<sup>5</sup>, Isabela Corintha (Brazil)<sup>6</sup>, Javier Jaimovich (Chile)<sup>7</sup>, Teodoro Dannemann (Chile)<sup>8</sup>, Patricia Cadavid (Colombia)<sup>9</sup>, Ximena Alarcón (Colombia)<sup>10</sup>, Adnan Marquez-Borbon (Mexico)<sup>11</sup>, Hugo Solis (Mexico)<sup>12</sup>, Miguel Ortiz (Mexico)<sup>13</sup>

<sup>1</sup>Mixed Reality Lab, University of Nottingham (UK) - psxjpma@nott.ac.uk

<sup>2</sup>Programa de Doutorado em Design, Universidade Federal de Pernambuco (Brazil) - tragtenberg@gmail.com

<sup>3</sup>Centro de Informática, Universidade Federal de Pernambuco (Brazil) - fcac@cin.ufpe.br

<sup>4</sup>Universidad Nacional de Quilmes / CONICET (Argentina) - juan.ramos@unq.edu.ar

<sup>5</sup>Universidad Nacional de Quilmes (Argentina) - mmatus@unq.edu.ar

<sup>6</sup>Programa Doutoral Multimédia em Educação - Universidade de Aveiro (Portugal) - isabelaalmeida29@gmail.com

<sup>7</sup>Facultad de Artes, Universidad de Chile (Chile) - javier.jaimovich@uchile.cl

<sup>8</sup>Media and Arts Technology PhD Programme, Queen Mary University of London (UK) - t.dannemann@qmul.ac.uk

<sup>9</sup>Interface Cultures, Kunstuniversität Linz (Austria) - lpcadavid@gmail.com

<sup>10</sup>Independent Artist/Researcher - info@ximenaalarcon.net

<sup>11</sup>Facultad de Artes, Universidad Autónoma de Baja California (Mexico) - adnan.marquez@uabc.edu.mx

<sup>12</sup>Departamento de Artes y Humanidades, Universidad Autónoma de México (Mexico) - h.solis@correo.1er.uam.mx

<sup>13</sup>Sonic Arts Research Centre, Queen's University Belfast (UK) - m.ortiz@qub.ac.uk

**Abstract.** *In this workshop, we propose the first steps towards consolidating a Latin American (LATAM) New Interfaces for Musical Expression (NIME) Research Community. We aim to start a discussion and generate ideas around short-term actionable initiatives that a LATAM NIME Research Community could explore in the near future. We will discuss various topics centered around three main areas: (1) The creation of a LATAM NIME network, (2) Exploring LATAM NIME perspectives, and (3) the Next Steps for LATAM NIME. After this activity, we will have a plenary discussion where we will share ideas for action and reflections. Lastly, we list a series of expected outcomes of the workshop, although we acknowledge that many others may emerge during the workshop. We look forward to taking the first steps towards a LATAM NIME Community and the future of this community within and beyond NIME, opening to other communities in LATAM, and stirring policy changes to support the development of our local communities.*

## 1. Workshop Description

Historically, Latin America (LATAM) has produced many musics that have resonated around the world. Equally, it has also significantly contributed and continues to contribute to the field of New Interfaces for Musical Expression (NIME) [1]. Yet, the NIME conference has only been hosted in LATAM once in 2019 at Porto Alegre, Brazil, where only 18 publications out of 88 were from LATAM authors and co-authors [2], and authors affiliated to South

\*Supported by CONICET

American institutions<sup>1</sup> represent only 2.4% of the total amount of participants of the first 20 NIME Conference editions (from 2001 to 2020) [3]. In this workshop we aim to discuss ways of further visibilizing and fostering NIME research in, by and for LATAM, echoing recent efforts from the wider LATAM Human-Computer Interaction research community [4]. Moreover, we primarily expect to consolidate a LATAM NIME Research Community through a series of actionable initiatives, such as creating a LATAM NIME network, and exploring ways of making NIME research more accessible, affordable and resourceful in consideration of regional geopolitical and socioeconomic challenges, among other actions.

## 2. Workshop Activities

The workshop will last approximately 4 hours and it will begin with a general introduction, i.e., introducing the organisers and their research work, and the workshop goals and activities. After a short break we will then introduce three general discussion areas, i.e., (1) Creating a LATAM NIME Network, (2) Exploring LATAM NIME Perspectives, (3) Next Steps for LATAM NIME. These discussion areas will be further subdivided into a series of short-term and long-term actions, among other topics, e.g., sharing resources and knowledge, mentorship programs, etc. The workshop schedule will vary according to the number of attendees. If we have a large number of attendees we will split into breakout discussion groups to discuss all of the

<sup>1</sup>The analysis considered only a division between North and South Americas, not considering the cultural/linguistic division of Latin America and didn't consider the authors nationality in the analysis

discussion areas in smaller groups. If we have a small number of attendees we will keep everyone in a single group and discuss all of the topics together. After the discussion activity, we will have a plenary discussion where we will share ideas and reflections. Then we will wrap up and conclude the workshop.

### 3. Discussion areas

The following discussion areas are meant for starting a discussion and generate ideas around short-term actionable initiatives that a LATAM NIME Research Community could explore in the near future. One of these initiatives involves creating communication channels, wikis, blogs and repositories to improve the communication and sharing of knowledge and resources amongst academics, artists, and makers, fostering a LATAM NIME network. We also intend to discuss how we can create a mentorship program to support new members of the community in the near future. Likewise, we intend to discuss long-term initiatives that can unfold over the years, such as the organisation and hosting of future NIME conferences in LATAM, and the creation of local NIME events, such as chapters and hubs, to further engage the LATAM community.

#### 3.1. Creating a LATAM NIME Network

##### 3.1.1. Building stronger ties

How can we build stronger ties between the different regions of LATAM making or wanting to make NIME research? We will discuss possible aims and goals of the network, as a group of researchers who may collaborate and self-organise together, as well as support each other and their communities, by exchanging knowledge, resources, and opportunities. This network may sustain itself through multiple channels such as a NIME subdomain<sup>2</sup>, a mailing list, a forum, and social media platforms, such as Discord or Telegram, among others. These channels may facilitate the sharing of calls for funding and participation, open positions, and news or updates related to the community, as well as providing visibility to the works of its members, in areas such as DMI design [5, 6, 7, 8, 9, 10, 11], accessible DMIs [12, 13], bodily interactions [14, 15] and Somaesthetics [16, 17], through blog posts, interviews, and a directory (as in the WONOMUTE blog<sup>3</sup>). Another consideration to be discussed is how can we make this community more inclusive to people outside of NIME who may be interested in understanding, researching, learning, teaching, designing, developing and performing with DMIs and/or music technology in a broader sense. These people may be makers, artists, musicians, pedagogues, independent researchers, or members of the general public. Likewise, professionals in other areas of work, such as science, engineering, the arts, and mathematics (STEAM), and others, may be also interested in exploring, and knowing more about NIME and even contribute to it.

<sup>2</sup><https://latam.nime.org/>

<sup>3</sup><https://wonomute.no/>

##### 3.1.2. Developing NIME Pedagogies for LATAM

We will discuss ways of sharing knowledge and educational content related to NIME, that may provide the basic skills for building digital musical instruments (DMIs), sourcing, synthesizing and designing sounds, and mappings for these instruments, and making music with them, among other relevant skills. Likewise, efforts can be made to translate existing knowledge bases into LATAM languages. The channels and format to share educational materials will also be discussed, as this could potentially be structured as online courses or workshops that can be imparted locally. The contents of these materials could also take into account local musical traditions and decolonized perspectives. Moreover, we shall discuss pedagogies with emergent musical technologies [18, 19, 20, 21] and how can these be informed by the rich history of education and pedagogy in LATAM.

##### 3.1.3. Mentorship Programs for LATAM

How can we mentor students, early career researchers and new members to the NIME community or working in NIME-related subjects in LATAM? Here we may discuss how we can provide mentorship and supports to research institutions and organisations who may be interested in working with NIME but do not have the experience, frameworks or resources to do so.

#### 3.2. Exploring LATAM NIME Perspectives

##### 3.2.1. Decolonising NIME Research: a LATAM Perspective

How can we further visibilize NIME research happening in LATAM by local institutions and with local populations, considering the institutional, political, economic, ecosystemic, cultural and ethnomusicological factors of each region, as well as research by LATAM researchers abroad who contribute to NIME and/or to LATAM through their research and associated projects, either institutionally-supported or by their own initiative? How can we explore alternative narratives for the design of DMIs which are centred in the sociocultural reality of LATAM? These DMIs may be based on popular [22] or traditional instruments[23] and technologies[24, 25], musics and dances [26] of each region, or they may be designed by harnessing existing local approaches [27] or elements of the local cultures, offering new meanings, insights and design opportunities for NIME. They may also explore concepts and narratives of the LATAM worldview [28, 29].

##### 3.2.2. Making NIME Research More Affordable and Resourceful

What are the ways in which we can make NIME research more affordable and resourceful in less privileged regions and institutions? This discussion may gravitate towards open source and low-cost software and hardware [22], recycling and repurposing electronic waste, tearing down unused or old electronic/digital instruments to learn from them, and enabling ways to exchange materials and knowledge [27]. This knowledge exchange might extend to other arts and disciplines, as well as to the general public and communities that can use and enjoy NIME.

### 3.3. Next Steps for LATAM NIME

#### 3.3.1. Hosting More NIMEs in LATAM

NIME has been successfully hosted in Porto Alegre, Brazil, opening new possibilities for future NIMEs in LATAM. What are the considerations for hosting future NIMEs in LATAM and what can we do to engage and support the local community, artists, researchers where the conference is hosted?

#### 3.3.2. Organising Local NIME Chapters and Hubs in LATAM

As well as conferences, another possibility is to host local NIME chapters in LATAM, that is, local satellite conferences and/or NIME-related events that may happen synchronously and or asynchronously with NIME. These chapters may be governed by local NIME committees and/or self-organised by local communities. Chapters may have their own proceedings (e.g., SIGCHI Local Chapters<sup>4</sup>) or might be events where a local hub can remotely stream talks from the conference or watch their recordings and then have a remote live Q&A session with the authors (e.g., IIT Bombay's 'Best of CHI' event<sup>5</sup>, a remarkable example of a sustainable satellite event engaging the local community). These hubs may also run their own workshops, performances and other community-engaging activities throughout the year.

#### 3.3.3. Writing NIME Papers in the Languages of LATAM

Although English may be considered the *lingua franca* in most academic disciplines, and most journals and conferences require submissions to be written in this language, it also imposes a linguistic barrier to academic efforts outside of the *anglosphere*. This barrier is also socioeconomic as not everyone has access to English language education, and it will always represent a disadvantage for communication and expression to English-as-a-second-language (ESL) speakers. How can we lower these barriers for emerging NIME research in LATAM whilst also including their work in the wider corpus of knowledge of NIME? An alternative would be to allow participants to submit and present their work in their native language, especially if the conference is held in a place where most people attending and residing there speak that language. Moreover, it could represent a more amicable entry point for non-English speakers, and their written works could be translated and/or simultaneously interpreted during the conference.

## 4. Expected Outcomes

Although we aim to have an open-ended and discussion-centred workshop, we expect a series of actionable outcomes that could emerge from it, and that would constitute the first building blocks of a future LATAM NIME community, such as:

- Communication platforms for the community (such as a mailing list, a Discord/Slack Workspace, a Telegram/WhatsApp group, a Forum, etc.)
- Define what can be hosted in the subdomain *latam.nime.org* (such as repositories for NIME related projects, biographies of the members, a blog, tutorials, interviews, etc.)
- Regular events that can gather locally or remotely the community (such as a local NIME conference chapter, regular meetings, festivals, conferences, residencies, etc.)
- Creating a local NIME-related publication (such as a journal, magazine, conference proceedings, etc.)
- Creative projects to foster a LATAM NIME Community (such as creating virtual space for meeting and sharing our contents, original artworks, apps, or platforms to connect the members of the community in different ways, etc.)

We also acknowledge that many other outcomes, beyond the ones stated above, may emerge from the workshop. We look forward to the future of this community and how it may extend beyond NIME, opening to other communities in LATAM, as well as stirring policy changes to support the development of our local communities.

## References

- [1] Martin Matus Lerner. Latin american NIMEs: Electronic musical instruments and experimental sound devices in the twentieth century. In Marcelo Queiroz and Anna Xambó Sedó, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 228–233, Porto Alegre, Brazil, June 2019. UFRGS.
- [2] Lauren Hayes and Adnan Marquez-Borbon. Nuanced and Interrelated Mediations and Exigencies (NIME): Addressing the Prevailing Political and Epistemological Crises. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 428–433. Zenodo, June 2020.
- [3] Stefano Fasciani and Jackson Goode. 20 nimes: Twenty years of new interfaces for musical expression. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, Shanghai, China, June 2021. NYU Shanghai.
- [4] Adriana Alvarado Garcia, Karla Badillo-Urquiola, Mayra D. Barrera Machuca, Franceli L. Cibrian, Marianela Ciolfi Felice, Laura S. Gaytán-Lugo, Diego Gómez-Zará, Carla F. Griggio, Monica Perusquia-Hernandez, Soraia Silva-Prietch, Carlos E. Tejada, and Marisol Wong-Villacres. Fostering hci research in, by, and for latin america. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*, CHI EA '20, page 1–4, New York, NY, USA, 2020. Association for Computing Machinery.
- [5] Juan Pablo Martinez Avila, Chris Greenhalgh, Adrian Hazard, Steve Benford, and Alan Chamberlain. *Encumbered Interaction: A Study of Musicians Preparing to Perform*, page 1–13. Association for Computing Machinery, New York, NY, USA, 2019.
- [6] Filipe Calegario, Marcelo Wanderley, João Tragtenberg, Eduardo Meneses, Johnty Wang, John Sullivan, Ivan Franco, Mathias S Kirkegaard, Mathias Bredholt, and Josh

<sup>4</sup>[sigchi.org/chapters/](http://sigchi.org/chapters/)

<sup>5</sup>[indiahci.org/best-of-chi2019/](http://indiahci.org/best-of-chi2019/)

- Rohs. Probatio 1.0: collaborative development of a toolkit for functional DMI prototypes. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 285–290. Zenodo, June 2020.
- [7] Filipe Calegario, Marcelo M. Wanderley, Stéphane Huot, Giordano Cabral, and Geber Ramalho. A method and toolkit for digital musical instruments: Generating ideas and prototypes. *IEEE MultiMedia*, 24(1):63–71, 2017.
- [8] Martin Matus Lerner. Osiris: a liquid based digital musical instrument. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 52–55. Zenodo, June 2017.
- [9] Laurel S Pardue, Miguel Ortiz, Maarten van Walstijn, Paul Stapleton, and Matthew Rodger. Vodhrán: collaborative design for evolving a physical model and interface into a proto-instrument. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 523–524. Zenodo, June 2020.
- [10] Juan Mariano Ramos. Eolos: a wireless MIDI wind controller. In Marcelo Queiroz and Anna Xambó Sedó, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 303–306, Porto Alegre, Brazil, June 2019. UFRGS.
- [11] Matthew Rodger, Paul Stapleton, Maarten van Walstijn, Miguel Ortiz, and Laurel S Pardue. What Makes a Good Musical Instrument? A Matter of Processes, Ecologies and Specificities. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 405–410. Zenodo, June 2020.
- [12] Teodoro Dannemann. *Luthiers del siglo xxi*, 2019.
- [13] Alex Michael Lucas, Miguel Ortiz, and Dr. Franziska Schroeder. Bespoke design for inclusive music: The challenges of evaluation. In Marcelo Queiroz and Anna Xambó Sedó, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 105–109, Porto Alegre, Brazil, June 2019. UFRGS.
- [14] Miguel A. Ortiz Pérez, Benjamin Knapp, and Michael Alcorn. Diamair: Composing for choir and integral music controller. In *Proceedings of the 7th International Conference on New Interfaces for Musical Expression*, NIME '07, page 289–292, New York, NY, USA, 2007. Association for Computing Machinery.
- [15] Javier Jaimovich and Francisca Morand. Shaping the biology of emotion: Emovere, an interactive performance. *International Journal of Performance Arts and Digital Media*, 15(1):35–52, 2019.
- [16] Ximena Alarcón Díaz. Conceptual design for intimal: a physical/virtual embodied system for relational listening. *The Journal of Somaesthetics*, 4(2), 2019.
- [17] Juan P Martinez Avila, Vasiliki Tsaknaki, Pavel Karpashevich, Charles Windlin, Niklas Valenti, Kristina Höök, Andrew McPherson, and Steve Benford. Soma design for nime. In Romain Michon and Franziska Schroeder, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 489–494, Birmingham, UK, July 2020. Birmingham City University.
- [18] Isabela Corintha Almeida, Giordano Cabral, and Professor Gilberto Bernardes Almeida. AMIGO: An Assistive Musical Instrument to Engage, Create and Learn Music. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 168–169. Zenodo, June 2019.
- [19] Isabela Corintha and Giordano Cabral. Improvised sound-making within musical apprenticeship and enactivism: An intersection between the 4e's model and dmis. *International Conference on New Interfaces for Musical Expression*, 4 2021. <https://nime.pubpub.org/pub/e4lsrn6c>.
- [20] Adnan Marquez-Borbon and Juan Pablo Martinez-Avila. The Problem of DMI Adoption and Longevity: Envisioning a NIME Performance Pedagogy. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 190–195. Zenodo, June 2018.
- [21] Adnan Marquez-Borbon. Collaborative Learning with Interactive Music Systems. In *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 581–586. Zenodo, June 2020.
- [22] Jerônimo Barbosa, Filipe Calegario, João Tragtenberg, Giordano Cabral, Geber Ramalho, and Marcelo M. Wanderley. Designing DMIs for popular music in the Brazilian northeast: Lessons learned. In Edgar Berdahl and Jesse Allison, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 277–280, Baton Rouge, Louisiana, USA, May 2015. Louisiana State University.
- [23] Juan Mariano Ramos. Bandoneon 2.0: desarrollo del prototipo de Bandoneón Electrónico ALFA. In UFSCar, editor, *Anais das XXVII Jornadas de Jovens Pesquisadores. A Ciência e a Tecnologia na Produção de Inovação e Transformação Social.*, São Carlos, Brazil, October 2019. UFSCar.
- [24] Laddy Patricia Cadavid Hinojosa. Electronic `_khipu_`: Thinking in experimental sound from an ancestral andean interface. *Computer Music Journal*, 44(2-3):39–54, 07 2021.
- [25] Laddy P Cadavid. Knotting the memory//encoding the `khipu_`: Reuse of an ancient andean device as a nime. In Romain Michon and Franziska Schroeder, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 495–498, Birmingham, UK, jul 2020. Birmingham City University.
- [26] João Tragtenberg, Filipe Calegario, Giordano Cabral, and Geber Ramalho. Tumtá and pisada: Two foot-controlled digital dance and music instruments inspired by popular brazilian traditions. In *Anais do XVII Simpósio Brasileiro de Computação Musical*, pages 76–83, Porto Alegre, RS, Brasil, 2019. SBC.
- [27] João Tragtenberg, Gabriel Albuquerque, and Filipe Calegario. Gambiarra and techno-vernacular creativity in nime research. *International Conference on New Interfaces for Musical Expression*, 4 2021. <https://nime.pubpub.org/pub/aqm27581>.
- [28] Ximena Alarcon-Diaz, Victor Evaristo Gonzalez-Sanchez, and Cagri Erdem. PICO: Intimal: Walking to feel place, breathing to feel presence. In Marcelo Queiroz and Anna Xambó Sedó, editors, *Proceedings of the International Conference on New Interfaces for Musical Expression*, pages 355–360, Porto Alegre, Brazil, June 2019. UFRGS.
- [29] Ximena Alarcon Diaz, Paul Boddie, Cagri Erdem, Eigil Aandahl, Elias Sukken Andersen, Eirik Dahl, Mari Lesteborg, and Alexander Refsum Jensenius. Sensing place and presence in an intimal long-distance improvisation. *Journal of Network Music and Arts*, 1(1):3, 2019.